Pedestrian, Bicycle and Traffic Safety Committee 2 June 2016





# BIPPA PROGRAM OVERVIEW

Silver Spring and beyond

#### Contact



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## What's a BiPPA?



- Bicycle and Pedestrian Priority Areas are districts that have been designated as areas where the movement and safety of bicyclists and pedestrians is prioritized.
  - Through the BiPPA Program, MCDOT studies and makes investments in bicycle and pedestrian projects.
  - The State Highway Administration can accept the designated BiPPAs and will make additional planning funds available for those areas.
  - Additionally SHA may be willing to treat roadway design differently within recognized BiPPAs.

## What's a BiPPA?

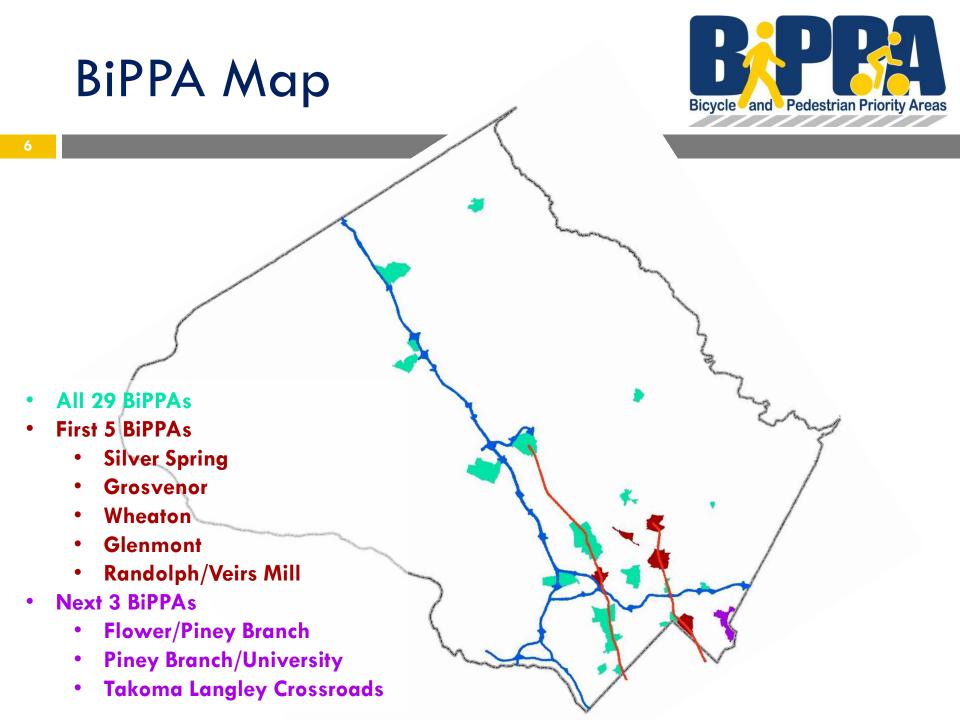


- There are 29 BiPPAs in Montgomery County
  - Each is designated by the Maryland-National Capital Park and Planning Commission (and adopted by the County Council) through the master plan process.
  - A separate process exists for submitting these BiPPAs to the State Highway Administration for recognition.
    - To date, only the White Flint BiPPA has been recognized by SHA.
    - The other 28 BiPPAs have been submitted and are pending at SHA.

## What's a BiPPA?



- □ Funding Priorities:
  - MCDOT can't fund improvements in all 29 BiPPAs at once.
  - □ In FY15, five BiPPAs were prioritized for study.
  - Funding for construction became available from FY16
    - Silver Spring CBD Construction FY16 onward
    - Grosvenor Construction FY17
    - Glenmont, Wheaton, & Randolph/Veirs Mill Construction
       FY 18 and beyond
  - Additional BiPPAs for study in FY17
    - Flower/Piney Branch, Piney Branch/University, Takoma Langley Crossroads



# Silver Spring Ped Improvements



- Early investment in Silver Spring included reconstructing curb ramps to meet ADA compliance throughout the CBD. This work has also been completed in **Grosvenor**.
- A new crosswalk was installed across Georgia
   Avenue at Fenwick Lane.
- We're working on a rapid rectangular flashing beacon pilot in the CBD as well

# Silver Spring Bike Parking



- Phase I of the Silver Spring Bike Parking project is underway. Additional racks are expected in Phase II in FY 2017.
- □ In Phase I, 37 racks will be installed in 14 locations.





The largest investments are in the bike network

■ Summer 2016

Spring St SBL

Cameron St bike lane

□ Fall 2016

Second Ave SBL

Wayne Ave cycletrack

Protected intersection



The largest investments are in the bike network

**□** Spring 2017

Cameron St bike lane

Dixon Ave SBL



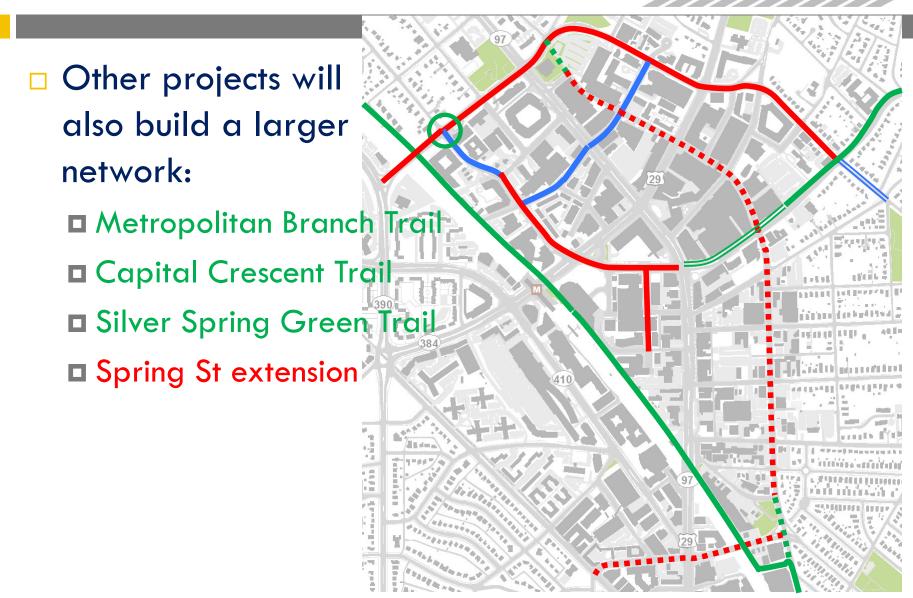


The largest investments are in the bike network

- Future projects under study:
  - Fenton Connector
  - Fenton Street cycletrack
  - 13<sup>th</sup>/Burlington cycletrack

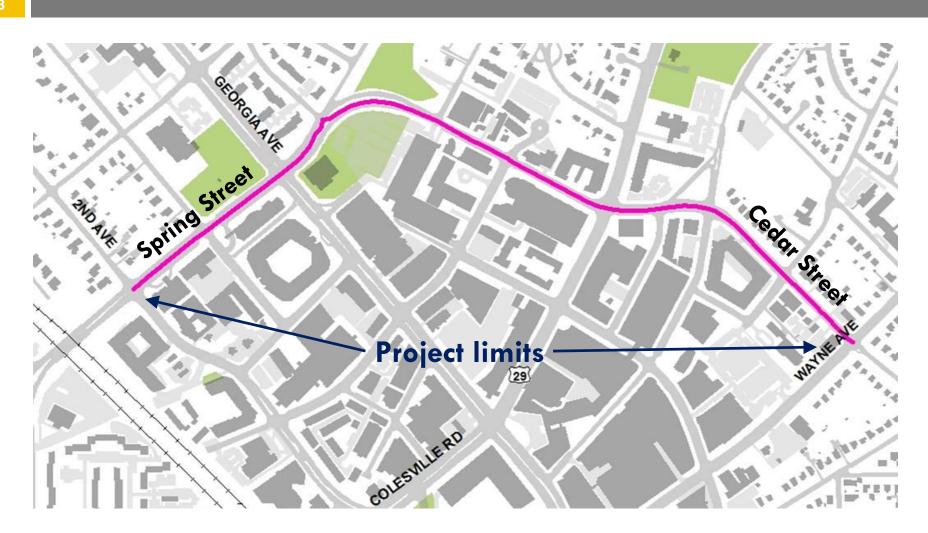






# Spring Street/Cedar Street





## Facility type



- One-way separated bike lane
  - A separated bike lane is a bike lane that includes a physical barrier between the bikeway and traffic. The barrier can be a curb, parked cars, flexposts, planters, or

a similar object.

Separated bike lanes offer more protection and less stress for all types of cyclists than a traditional bike lane.



## Proposed sections



- Spring at Second
  - Bike lanes separated by parked cars.
  - Travel lanes, turn lanes, and parking retained.

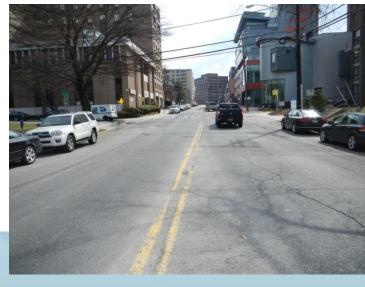


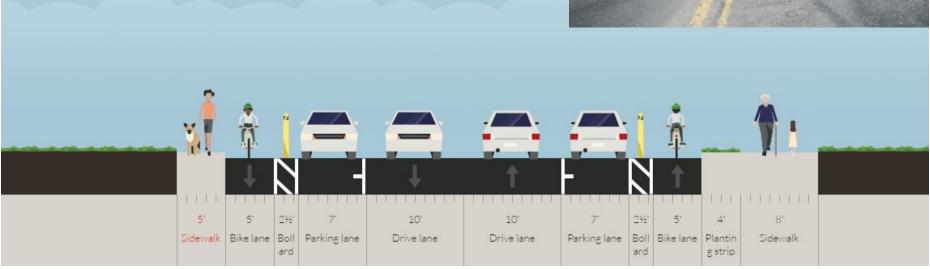


## Proposed sections



- Spring at Fairview
  - Bike lanes separated by parked cars.
  - Travel lanes and parking retained.





## Proposed sections



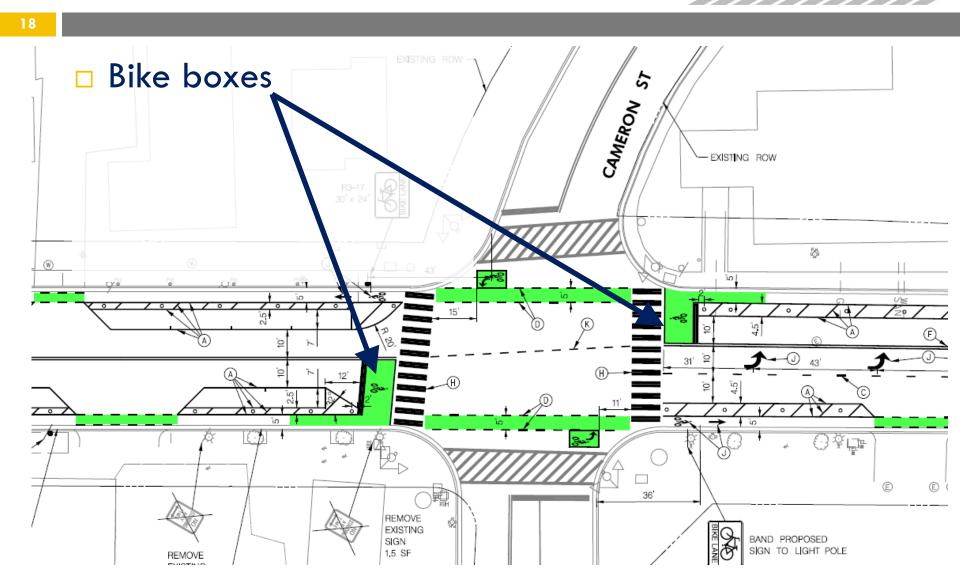
- Cedar at Wayne
  - Conventional bike lanes on this block.
  - Eastbound lane connects to existing Cedar Street contraflow bike lane.

Turn lane

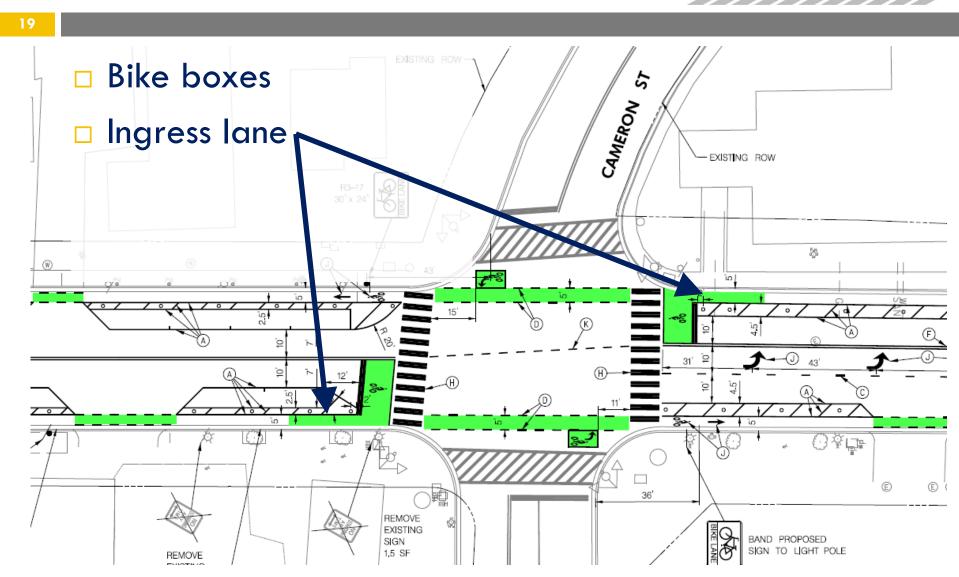
Parking removed.













- □ Bike boxes
  - Most signalized intersections will get bike boxes.
  - Benefits of bike boxes:
    - Allow cyclists to position themselves to be visible to drivers.
    - Increase the throughput of the intersection for cyclists and reduce delay.
    - Facilitate left turns during the red phase of the signal.

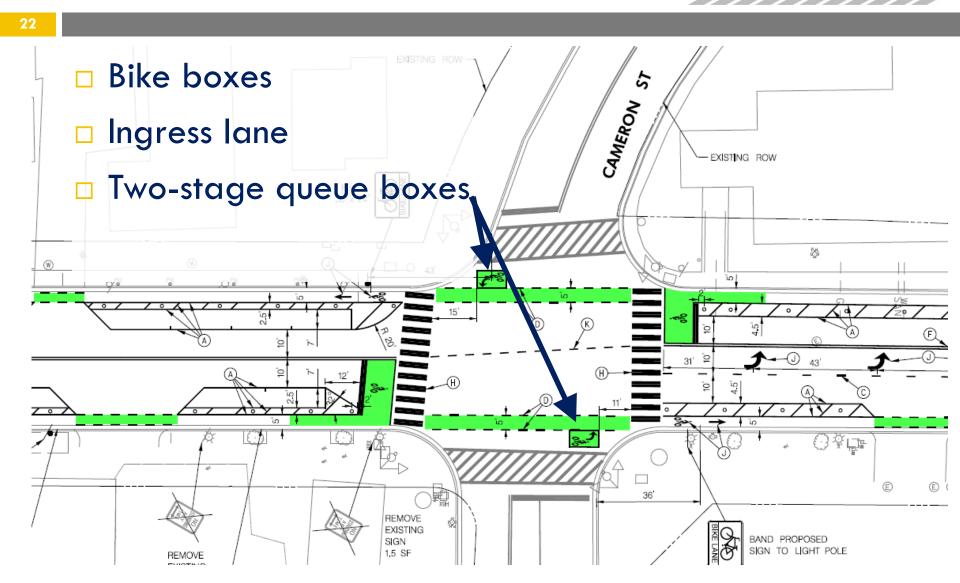




- □ Bike boxes
  - Montgomery County already has one of these on Woodglen Drive.

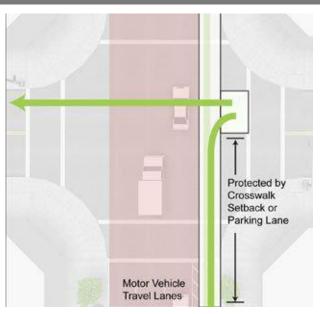






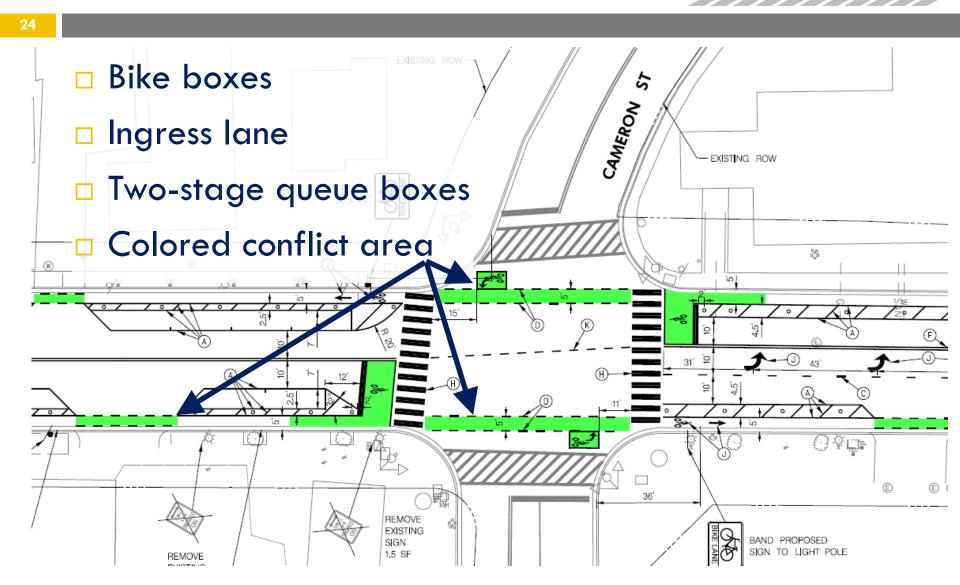


- Two-stage queue boxes
  - Most signalized intersections will get two-stage queue boxes.
  - Benefits of two-stage queue boxes:
    - Allows safer/more comfortable left turns for cyclists off of the cycletrack.
    - Separates turning cyclists from through cyclists.
    - Reduces turning conflicts
       between cyclists and motorists.









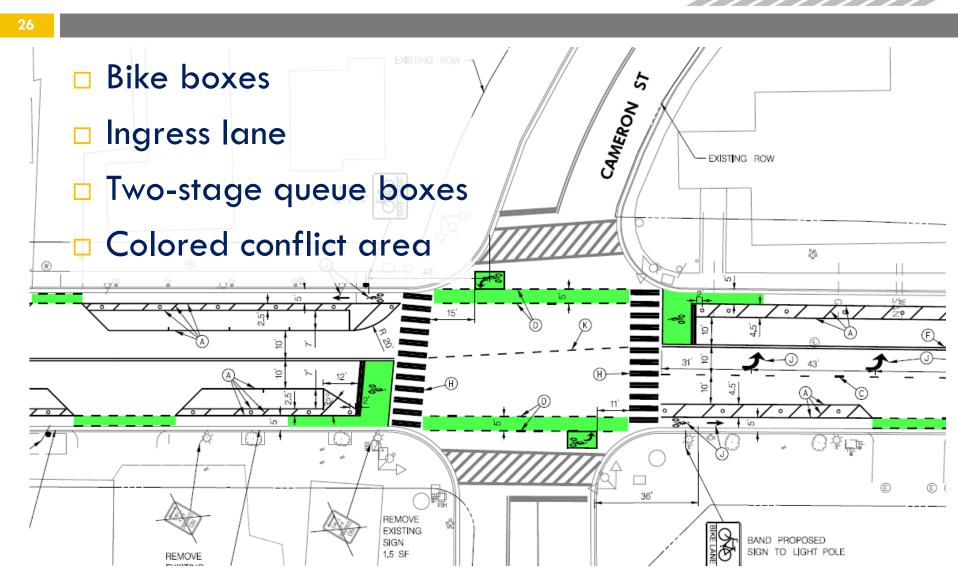


- Colored conflict areas
  - Signalized and unsignalized crossings and driveways will be marked with colored pavement.
  - Benefits of colored conflict areas:
    - Increases the visibility of cyclists
    - Raises awareness of conflict areas to both cyclists and motorists.
    - Reinforces cyclist priority over turning vehicles.
    - Guides cyclists through the intersection.
    - Makes bicycle movements more predictable.





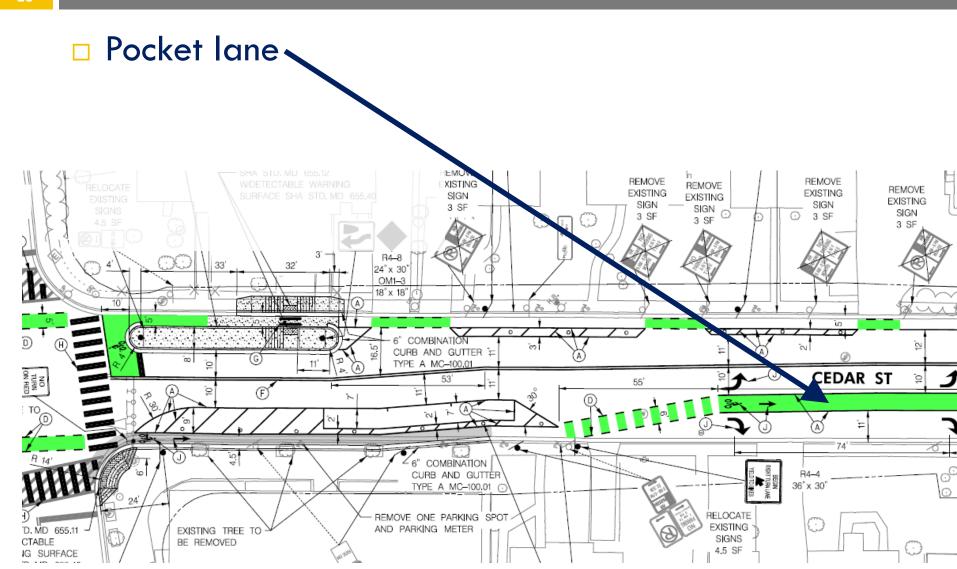






- Dealing with right turn lanes
  - There are heavy turn volumes at Spring/Georgia and Spring/Colesville (westbound).
  - We cannot modify the signals at this time to get an exclusive/protected bike phase.
  - At these intersections, the right turn lane will be to the right of the bike lane with a mixing zone at the approach.
  - We hope to use flexposts to prevent crossovers in the queue area.







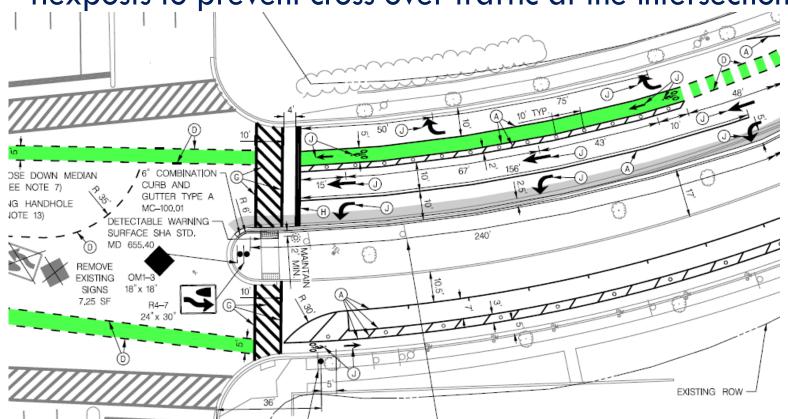
#### Pocket bike lane

- Where there's a right turn lane, the bike lane needs to be to the left of it.
- Benefits of a pocket lane:
  - Prevents "right hook" collisions.
  - Moves crossing movements away from the intersection.
- Drawbacks:
  - Requires a mixing zone.
  - Bike lane loses separation.





- Pocket bike lane
  - At Spring/Georgia and Spring/Colesville, we will use flexposts to prevent cross over traffic at the intersection.





□ Pocket lane

■ Mixing zone、 EMOVE REMOVE REMOVE XISTING REMOVE **EXISTING EXISTING** SIGN EXISTING **EXISTING** SIGN SIGN 3 SF SIGN 3 SF ① SIGN 3 SF R4-8 24° x 30" OM1-3 18" x 18" CURB AND GUTTER = TYPE A MC-100,01 **CEDAR ST** Z6" COMBINATION CURB AND GUTTER 36" x 30" TYPE A MC-100.01 RELOCATE REMOVE ONE PARKING SPOT EXISTING AND PARKING METER EXISTING TREE TO SIGNS CTABLE BE REMOVED 4,5 SF IG SURFACE



#### Mixing zones

■ A mixing zone allows bicycles and right turning vehicles to cross over each other before the intersection.

#### **■** Benefits:

- Reduces chances of "right hook" at the intersection.
- Correctly positions cyclists and vehicles for intersection.

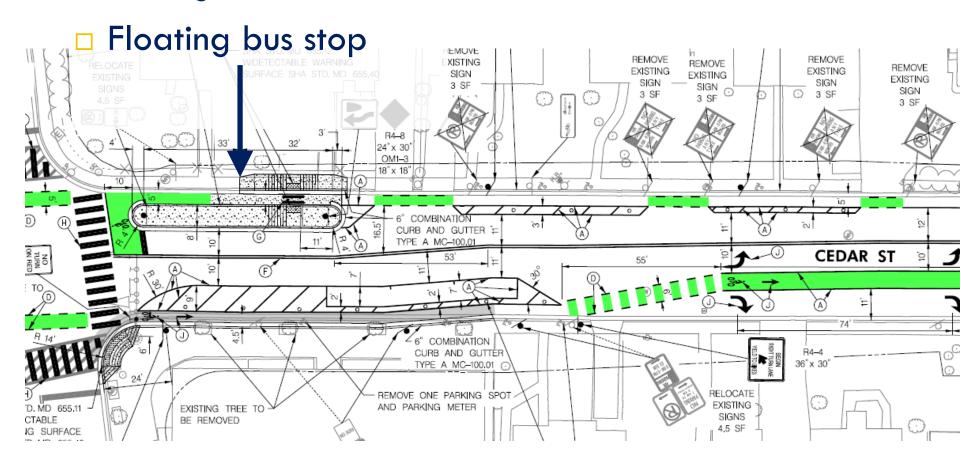
#### Drawback

Removes separation.





- □ Pocket lane
- Mixing zone





#### Floating bus stop

■ A floating transit stop avoids requiring buses to pull into the bike lane to discharge passengers.

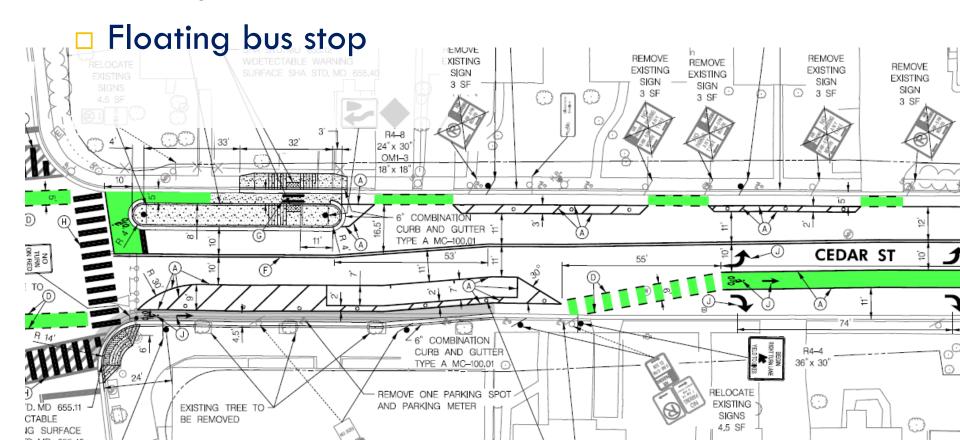
#### **■** Benefits:

- Avoids buses pinching cyclists against curb.
- Transit patrons have exclusive waiting area.

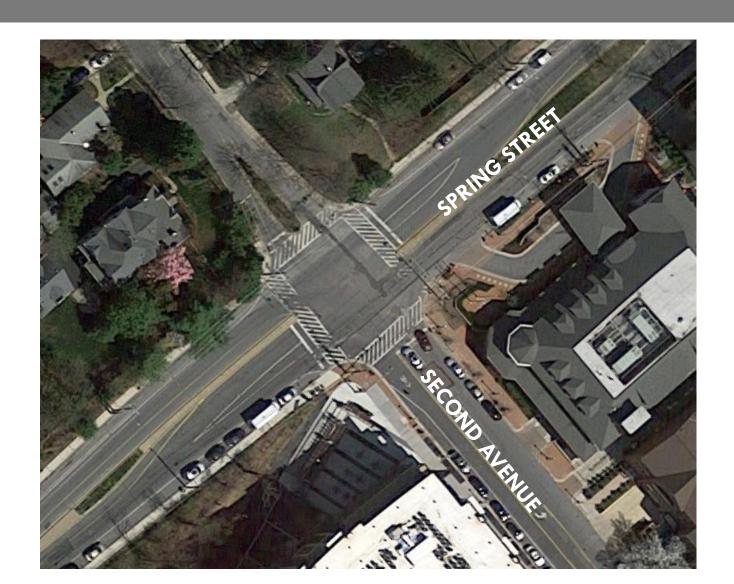




- Pocket lane
- Mixing zone



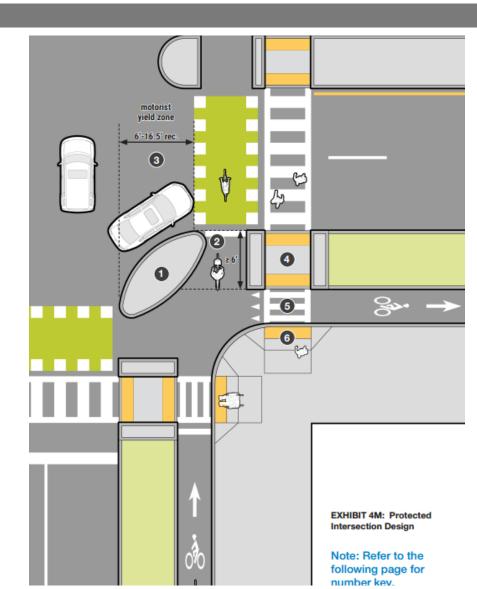
## Spring/Second Protected Intersection



## Protected Intersection







## Questions?





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